To the Graduate Council:

I am submitting herewith a dissertation written by Mary Margaret Selvidge Dotson entitled "The Relationship between Fifth Grade Children's Attitude toward Reading and Factors Such as Success or Failure in Reading, Intelligence Quotient, Sex, Grade Retention, Level of Grade Retention, and Socioeconomic Status." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Curriculum and Instruction.

J. Estill Alexander, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:

Vice Chancellor
Graduate Studies and Research

THE RELATIONSHIP BETWEEN FIFTH GRADE CHILDREN'S ATTITUDE TOWARD READING AND FACTORS SUCH AS SUCCESS OR FAILURE IN READING, INTELLIGENCE QUOTIENT, SEX, GRADE RETENTION, LEVEL OF GRADE RETENTION, AND SOCIOECONOMIC STATUS

A Dissertation

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DEDICATED

To my parents, whose major concern
in life has been the happiness and
well-being of their three daughters.

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ABSTRACT

The purposes of the present study were to determine if a significant relationship existed among reading attitude and factors such as success or failure in reading, intelligence quotient, sex, grade retention, level of grade retention (if any), and socioeconomic status.

The subjects included 332 fifth grade children in the Blount County school system. The children used in the study were those who chose to participate and who were able to acquire parental permission. The Heathington Intermediate Attitude Scale was administered to all participating fifth grade students. The remainder of the data relevant to the study were acquired from the students' cumulative records and included a grade equivalent score determined by the Stanford Achievement Test, an intelligence quotient determined by the Otis-Lennon Mental Ability Test, sex of subject, factor of grade retention, level of grade retention (if any), and occupation of parent. The occupation of the parent was used to determine the level of socioeconomic status by means of the Anne Roe Two-Way Classification of Occupations system.

Research tools used to determine if a significant relationship existed among reading attitude and the above mentioned factors included: a biserial procedure, used to analyze the data relevant to the factors of success or failure, grade retention, level of grade retention, and mental ability as they relate to attitude

toward reading; a Pearson product-moment correlation and Spearman rank-difference correlation, used to analyze the data concerning intelligence and attitude toward reading; a point-biserial procedure employed to determine if a significant relationship existed between sex and reading attitude; and a contingency correlation used to determine the relationship between socioeconomic status and attitude toward reading. The findings were:

1. There was a significant correlation between success or failure in reading and attitude toward reading, $p < 0.001$.

2. There was a significant correlation between grade retention and attitude toward reading, $p < 0.001$.

3. There was no significant correlation between level of grade retention and attitude toward reading, z 0.45265

4. There was a significant correlation between intellectual ability and attitude toward reading, $p < 0.001$.

5. There was a significant correlation between sex and attitude toward reading. Girls held a more positive attitude toward reading than did boys in the 332 subjects studied, $p < 0.002$.

6. There was a significant correlation between socioeconomic level and attitude toward reading, $p < 0.05$.

Based on the results of this study, it was recommended that educators provide a reading program that will ensure the success of each child. Also, it was recommended that more research be conducted in the areas of success and failure, grade retention, and socioeconomic status as they relate to reading attitude.

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CHAPTER I

INTRODUCTION

I. STATEMENT OF THE PROBLEM

Teachers in the past have held the belief that children's attitudes toward a task or discipline are affected by their ability to achieve in the subject attempted. There is limited research dealing with this belief, and the research that has been done up to this date suggests conflicting results. For example, a study done by Askov and Fischbach (1973) revealed that the children showing a good attitude toward recreational reading were those children who were considered to be good readers and had scored high on the paragraph meaning subtest of the Stanford Achievement Tests. Ransbury (1973) found that fifth and sixth grade students believed their attitudes toward reading were the result of their ability in reading.

Contrary to the above findings, Greenberg (1965) found no relationship between reading achievement and attitudes. Also, a study done by Bernstein (1972) failed to show any change in attitudes as a result of improved achievement; thus, more research is needed to determine if there is a relationship between attitude and success or failure in reading.

Educators tend to think that intelligence, socioeconomic status, and sex may influence the child's attitude toward reading. These feelings have been somewhat discounted by the limited research

available. Hansen (1969) and Groff (1962) failed to find a significant relationship between intelligence and attitude toward reading. Socio-economic status also has a negligible relationship to reading attitude according to studies conducted by Filler (1973), Groff (1962), and Hansen (1969).

The sex of the child shows a significant relationship to reading attitude in some studies and fails to do so in others. Harrington (1972), Hansen (1969), Askov and Fischbach (1973), and Diehl (1972) found a significant difference in the reading attitude of boys and girls while Greenberg and others (1965), and Jackson and LaHaderne (1967) found no difference in the attitudes of the two sexes.

Some teachers and school systems tend to retain children as though no ill effects will be manifest in a negative attitude toward reading. Many teachers do, however, feel that the earlier the retention the least likely it is to affect the child's attitude toward reading. This investigator found no research dealing with this particular issue.

Since there is conflicting evidence between reading attitude and success or failure in reading, this presents a major problem for educators; thus the primary purpose of this study was to determine if a significant relationship exists between the two factors.

Need for the Study

If teachers believe that factors such as success or failure, socioeconomic status, sex, intelligence, and grade retention influence

the child's attitude toward reading, they will be prone to form expectations for the child based on this belief. Teacher expectations for the child may be an important factor in his achievement and in the attitude he develops toward school related tasks. A study done by Palardy (1969) has shown that children seem to perform the way their teacher believes that they will. He found that when teachers of first grade students believed that boys would be less successful than girls, they were indeed less successful. Can we expect the same results concerning children's attitudes toward reading when teacher expectations are based on the child's success or failure in reading, his socioeconomic status, or his intellectual ability?

If the child's achievement is as dependent upon the teacher's beliefs about the child as Palardy's study suggests, then it is important that the teacher have valid information from which to form his expectations. More research is needed to determine if a positive attitude toward reading is significantly greater in children who are successful in reading than in those children who have experienced failure in reading, to confirm or refute the findings that intelligence and socioeconomic status have negligible relationships to reading attitude, and to determine whether sex is a significant factor in the child's attitude toward reading. Since no research was found dealing with grade retention and attitudes toward reading, this variable should also be explored.

Purpose of the Study

The major purpose of this study was to correlate the attitude and achievement scores of the fifth graders in the Blount County, Tennessee school system who have experienced success or failure in reading. The children's attitudes were measured by the Heathington Intermediate Attitude Scale (1975), and their achievement scores were determined by the total reading score on the Stanford Achievement Test, Intermediate Level II-Form A (Madden and others, 1973). Other purposes of this study were to seek to determine if factors such as intelligence, sex, and socioeconomic status correlate significantly to reading attitude, and whether the level of grade retention, if any, is significantly related to attitude toward reading. Specific questions investigated in this study were:

1. Is there a significant relationship between success or failure in reading and attitude toward reading?
2. Is there a significant relationship between the factor of grade retention and attitude toward reading?
3. Is there a significant relationship between the level at which the child was retained and his attitude toward reading?
4. Is there a significant relationship between the intectual ability of children and their attitude toward reading?
5. Is there a significant relationship between sex and reading attitude?

6. Is there a significant relationship between socioeconomic status and attitude toward reading?

Definitions

Positive attitude. In this study a positive attitude was defined as a score of 4 or 5 was given on the Heathington Intermediate Attitude Scale (1975). The subjects scoring in the upper one-third of the scale were considered to hold a positive attitude toward reading.

Negative attitude. For the purpose of this study, a negative attitude was defined as a score of 1 or 2 was indicated on the Heathington Intermediate Attitude Scale (1975). The subjects scoring in the lower one-third of the scale were considered to hold a negative attitude.

Success. In this study success was defined as a score of 9.0 or above on the total reading score of the Stanford Achievement Test, Intermediate Level II-Form A (Madden and others, 1973). The score of 9.0 or above was arrived at as the result of a definition given by Fliegler and Bish (1959) which stated, ". . . the term gifted encompasses those children who possess a superior intellectual potential and functional ability to achieve academically in the top 15 to 20 percent of the school population; . . . " (p. 409). In reviewing the records of a sample of the population tested, it was found that the score of 9.0 or above would fall into the category of 15 to 20 percent of the school population. It has been established

that for some students standardized tests overrate the student's classroom performance (Botel, 1957), and that for a child to feel successful in reading he may need to score well above grade level. This finding, along with an investigation of the students' scores in one school, led the researcher to choose a score of 9.0 or above to indicate success.

Failure. Failure, in this study, was defined by two measures. First, failure was defined as a score of 4.0 or below on the total reading score of the Stanford Achievement Test, Intermediate Level II-Form A (Madden and others, 1973). The score of 4.0 or below was arrived at as a result of a scale developed by Kaluger and Kolson (1969) which classified fifth and sixth graders as remedial readers when they scored 9 months-1 year behind grade level in reading. Second, failure was indicated when the subject's records showed that he had been retained a year sometime during the total school experience.

Socioeconomic status. For the purpose of this study, socioeconomic status was measured by the Anne Roe Two-Way Classification of Occupations (1956). The six levels of the Roe scale were collapsed into three to indicate high, medium, and low socioeconomic status.

Intellectual ability. In this study the Otis-Lennon Mental Ability Test, Elementary II-Form J (1967) was used to measure intellectual ability. The scores obtained from the Otis-Lennon Test were categorized into above average (111 and above), average (90-110), and below average (89 and below).

Limitations

Although the study included subjects with diverse achievement, ability, and socioeconomic status, it is confined to the 332 subjects studied.

Only the subjects acquiring parental permission were used in the study. Also, the subjects were given the opportunity to refuse to participate. These two factors limited the population studied.

The small number meeting both criteria for failure makes the significance for that correlation questionable.

In looking at the factor of socioeconomic status as it relates to reading attitude, it should be noted that the employment information acquired from the cumulative records was somewhat broad in nature and in many instances did not pinpoint the exact position held by the parent.

Assumptions

1. It is assumed that attitudes can be measured.
2. It is assumed that the tests used to measure intelligence, achievement, socioeconomic level, and attitude did measure what they were intended to measure.
3. It is assumed that feelings of success or failure arise as a result of classroom performance.

Organization of the Study

This study is organized into five chapters.

Chapter I contains the introduction, statement of the problem, purpose of the study, need for the study, definitions, limitations, and organization of the study.

Chapter II contains a survey of the literature relevant to attitudes and success or failure in reading, attitudes and intellectual ability, attitudes and socioeconomic status, attitudes and sex, and attitudes and grade retention.

Chapter III describes the procedures followed in carrying out the research project.

Chapter IV contains the presentation and analysis of the data.

Chapter V includes a summary, conclusions, discussion, implications, and recommendations.

CHAPTER II

REVIEW OF RELATED LITERATURE

A survey of the limited number of studies failed to reveal conclusive evidence that any one of the factors investigated in this study is significantly related to the child's attitude toward reading. The factors investigated included the relationship between success or failure in reading and attitude toward reading, intellectual ability and reading attitude, socioeconomic status and reading attitude, sex and reading attitude, grade retention and reading attitude, and level of grade retention and reading attitude. The search for related literature included a formal ERIC-CIJE search and a search by the investigator in Dissertation Abstracts and Education Index for the years 1965-1975.

A review of the literature is presented under the following four headings: Success or Failure and Attitude Toward Reading; Intelligence and Attitude Toward Reading; Sex and Attitude Toward Reading; and Socioeconomic Status and Attitude toward Reading. No research was found regarding grade retention and attitude toward reading.

I. SUCCESS OR FAILURE AND ATTITUDE TOWARD READING

In reviewing the literature related to the relationship of success or failure in reading to attitude toward reading, only

two studies were found to be directly related.

Puryear's study (1975) involving ninety fourth grade students revealed a significant relationship between attitude toward reading and reading achievement when using both the Rowell Attitude Scale and the Estes Attitude Scale. The Comprehensive Tests of Basic Skills (CTBS) was used to measure reading achievement in both instances. The investigator used success and failure interchangeably with high achievement and low achievement. No mention was found in the study of grade retention and its possible relationship to attitude toward reading. The number of subjects used in this study may have been too small to produce conclusive results.

Results contrary to the above findings were found by Jackson and LaHaderne (1967). Their investigation of the relationship between scholastic success and attitude toward school found the correlation between success in reading and attitude toward reading to be negligible when measuring 292 sixth graders on the Student Opinion Poll II and the Michigan Student Questionnaire.

A limited number of research studies have dealt with the relationship between reading achievement and attitude toward reading. Ransbury (1973) conducted one such study which involved 60 fifth and sixth grade students. When the subjects were asked to state what factors they believed to have influenced their attitude toward reading they implied that their ability in reading was a major influence.

In a study involving 170 first and third graders, Askov and Fischbach (1973) investigated the relationship between attitude

toward reading and sex, achievement, and grade placement and found that ". . . with the effects of sex, grade, and grade by sex interaction controlled, attitude scores are positively related to Paragraph Meaning subtest scores but not to scores on the Word Reading subtest." The researchers attributed these results to the fact that the "Paragraph Meaning subtest assesses the global reading process while the Word Reading subtest primarily measures vocabulary" (p. 4).

The conclusion drawn from this study was that perhaps a school program would be more effective if directed toward improving the child's reading skills and achievement rather than focusing on improving attitudes.

Remer (1970) did a follow-up study of fifth, sixth, and seventh graders who had been involved in a remedial reading program. This program was conducted in a camp setting and was highly individualized to include instruction in "vocabulary enrichment, comprehension improvement, work study skills, recreational reading, oral reading, speed reading, (and) writing skills" (p. 272). The results of the program were evaluated by teachers and students. The teachers reported "improved attitudes of participants toward schools and teachers [while the] children enthusiastically reported gains in school achievement" (p. 274).

Two groups of students designated "above average" and "below average" were studied by Hake (1969). The results of this study revealed a significant difference in reading attitude between good and poor readers at the .01 level of confidence. The subjects in this study were 89 sixth grade pupils. The California Achievement

Test was used to measure the achievement and the Reading Appreciation Test (RAT) was used to evaluate attitudes toward reading.

Another study rendering similar results was conducted by Harrington (1972). The attitudes of 291 third and fifth graders from a suburban district were measured and the results confirmed the above findings that a significant positive relationship existed between reading achievement and attitude toward reading in this population. The California Achievement Test was used to determine achievement while the San Diego County Inventory of Reading Attitude was used to evaluate attitude toward reading.

Improvement in achievement and attitude may occur concurrently. An Evaluation of the Communication Skills Center Projects (CSC) (1967) for children in the Detroit area who were considered to be educationally disadvantaged revealed that the gains in reading achievement were beyond the expectations for normal-achieving pupils and the classroom teachers reported improved student attitudes toward reading.

Similar results were found by Wurster and Mathis (1975) in a study sponsored by the Office of Education (DHEW), Washington, D.C. and under the guidance of Arizona State University. The results after three years of a Title I supportive reading program showed improved "oral reading, reading skills, self-concept, student attitude toward reading, and attendance" (document résumé). Those participants averaging one month or more gain in reading achievement for each month spent in the program represented 92.5 percent of

the 161 participants while 68.9 percent experienced a gain in attitude toward reading. The Slosson Oral Reading Test and the Woodcock Reading Mastery Tests were used to measure improvement in reading achievement and the Reading Attitude Inventory was used to measure attitude toward reading.

An evaluation study conducted by Bien (1975) and sponsored by the Bureau of Elementary and Secondary Education included 486 pupils from the Hartford nonpublic schools. The objectives of the program had been to improve academic performance in reading, math, and language, and to improve the student's attitude toward the academic areas through an increase in achievement. The results of the study showed that 73 percent "attained a minimum of one month's growth for each tested month of service" (p. 10). This met and surpassed the objective to improve in reading skills as measured by the Silvaroli I.R.I., the Metropolitan Test, and the California Reading Test. The posttesting of the Attitude and Interest Survey revealed that in comparison to the pretest:

9 percent more students like to read
41 percent fewer had a favorite book
36 percent more read books recommended by friends
7 percent more went to the library
31 percent fewer watched TV instead of reading
25 percent more read books related to movies or TV programs

(p. 14). The posttesting showed students "slightly less pleased with school (8 percent), more pleased with their reading (11 percent), and more favorable toward teachers (7 percent)" (p. 14).

Not all research studies show a significant correlation between success or failure in reading and attitudes toward reading. Many pupils who are high in attitude toward reading are not high achievers. These were the results found by Faust (1962) when he sought to examine the relationship between attitude and achievement in arithmetic, reading, spelling, and language. The correlation between the attitude scores and reading achievement scores was .06 and not significant in over 2600 fourth, fifth, and sixth grade pupils.

Another investigation by Orr (1973) including 72 seventh, eighth, and ninth graders found that an "increase in reading achievement was accompanied by a decrease in attitude toward reading" (p. 4711-A). The investigator felt, however, that in "testing at the beginning of two consecutive school years rather than at the beginning and end of one school year, intelligence testing to control for ability, the addition of a control group, and a larger number of subjects in the experimental group might change these results" (p. 4711-A).

A study involving 115 black fourth grade children from "a severely depressed urban area" revealed that good readers did not display more favorable attitudes toward reading than did poor readers. Greenberg and others (1965) suggested, however, "that the relatively high favorable ratings of the poor achievers, particularly the boys, might stem from their greater defensive needs" (p. 61).

Mingoia (1962) found similar results when he conducted a study involving 30 overachieving and 30 slightly underachieving

sixth graders. He, however, felt that a difference would have resulted if the extreme under and overachievers had been used in the study.

When investigating the Right to Read program in the Manaroneck, New York public schools, Bernstein (1972) found no significant relationship between improved achievement and attitudes toward reading. The investigator, however, indicated that perhaps the teachers' lack of enthusiasm may have influenced the results.

From the limited research available, it seems that success in reading achievement does not always indicate a positive attitude toward reading, and failure in reading does not always indicate a negative attitude toward reading. More research is needed, however, to substantiate these findings.

II. INTELLIGENCE AND ATTITUDE TOWARD READING

It was suggested in the previous section that success in reading achievement does not necessarily indicate a positive attitude toward reading. A similar trend may be observed when reviewing the research concerning the relationship between children's intellectual ability and their attitude toward reading. The research is again limited and only two studies were found to be related to this question.

Hansen (1969) sought to determine the relationship between intelligence and attitude toward reading. His subjects included 48 fourth grade students in a mid-Wisconsin community where suburban,

urban, and rural characteristics were present. The results of this study led "to the conclusion that while intelligence is directly related to reading test achievement, it is not a valid predictor of reading attitude" (p. 22).

Another study leading to similar conclusions was done by Groff (1962). He looked at the relationship between intelligence and reading attitude of 305 fifth and sixth grade children and found a negligible relationship between the two.

III. SEX AND ATTITUDE TOWARD READING

Many teachers believe that girls tend to have more positive attitudes toward reading than boys. Of the limited research in this area, a number of studies suggest this may be true while a few show no difference in the attitudes of boys and girls, and one study reveals more positive attitudes displayed by boys than girls.

Another aspect of the Harrington (1972) study, reported earlier, was the relationship of attitude toward reading and sex. In this sample of 291 third and fifth grade pupils from a suburban district, it was found that "girls had significantly more positive attitudes toward reading than boys" (p. 1701-A). This was true for both the third and fifth grade levels when attitudes were measured by the San Diego County Inventory of Reading. Hansen (1969) found similar results when he drew a sample of 48 fourth graders representing suburban, urban, and rural characteristics.

The previously mentioned study by Askov and Fischbach (1973) measured the attitudes of boys and girls on the Primary Pupil Reading Attitude Inventory. They used as their subjects 111 black fourth grade children in a deprived urban area and found that "girls have more positive attitudes toward reading than boys, both before and after removing the effects of achievement" (p. 4).

The San Diego County Inventory of Reading Attitude was used by Diehl (1972) to evaluate the attitude of 160 students. In this study "girls were found to have a significantly more favorable attitude toward reading than boys . . ." (p. 4238-A). Powell (1972) chose a sample of "fourth, fifth, and sixth grade students in rural, innercity, and suburban schools" (p. 5587-A). The investigator developed the Reading Attitude Index to measure the students attitude toward reading. Findings of this study revealed that "females in the rural experimental group completed more books than any group of males or any other group of females" (p. 5587-A).

Contrary to the above findings, Greenberg and others (1965) found that of the 115 fourth-grade negro children in a severely depressed urban area the poor-achieving boys assigned the most favorable potency rating to the concept of "reading." The investigator suggested that this may have been the result of their great defensive needs.

A study by Jackson and LaHaderne (1967) found no significant difference in the attitudes of boys and girls toward reading when they measured the attitudes of "the entire sixth grade of the public

schools in a predominantly white, working class suburb" (p. 15). Both the Student Opinion Poll II and the Michigan Student Questionnaire were used to measure attitude toward reading.

Puryear (1975) found the relationship between sex and attitude toward reading to be nonsignificant with fourth grade children. He measured attitude toward reading on both the Estes Attitude Scale and the Rowell Attitude Scale.

IV. SOCIOECONOMIC STATUS AND ATTITUDE TOWARD READING

Socioeconomic status as determined by the father's occupation tends to be unrelated to the child's expressed attitude toward reading as found in the limited number of studies available. Filler (1973) used 177 fifth grade students from four schools to study the relationship between socioeconomic status and attitude toward reading. Two schools were in the Title I program and two schools were not. Reading attitude was measured on the Estes Reading Attitude Scale. The findings from this study indicate that there is no significant difference between the attitude of students from the two socioeconomic levels at any given stanine level of achievement as determined by the Stanford Achievement Test.

A negligible relationship was found between socioeconomic status and reading attitude when Groff (1962) studied 305 fifth grade boys and girls. The investigator used three instruments to measure attitude: a modification of Remmer's Scale for Measuring Attitude

Toward Any School Subject, Tenenbaum's School Attitudes Questionnaire, and Thorndike's Fictitious Annotated Titles Questionnaire. The Warner Index of Status Characteristics was used to determine the socioeconomic status of the subjects.

Hansen (1969) found similar results when he looked at the relationship between socioeconomic status and attitudes toward reading. The instruments used in this study include the Warner Index of Status Characteristics and a reading attitude questionnaire devised by the researcher.

V. SUMMARY

From the research data, it seems that a child's attitude toward reading may or may not be significantly influenced by factors such as success or failure, sex, intellectual ability, and socioeconomic status. The research is limited in each of the stated areas, however. The available research in the areas of success or failure and reading attitudes, and sex and reading attitudes reveals conflicting evidence as to whether there is a significant correlation between the two, while the available research in the areas of intelligence and socio-economic status suggests that there is probably no significant relationship between these variables and attitude toward reading. No research was found in the area of grade retention and reading attitude.

CHAPTER III

RESEARCH METHODS AND PROCEDURES

The purposes of this study were to determine whether the attitude the child holds toward reading is correlated to any significant degree with the child's success or failure in reading and to determine whether factors such as intelligence quotient, sex, socioeconomic status, grade retention, and level of grade retention tend to be related to reading attitude. The following steps were taken to accomplish these purposes: 1. pilot study, 2. selection of the subjects, 3. selection of measurement instruments, 4. administration of measurements, and 5. statistical analysis.

I. PILOT STUDY

In the fall of 1976, prior to collecting the data for this research study, the investigator conducted a pilot study for the purpose of determining if the designated procedures were adequate for the proposed study. The pilot school included three fifth grades totaling 64 students. It was similar to the schools in the Blount County school system in structure and curriculum. After securing permission from the school board, the investigator went into the school to administer the Heathington Intermediate Attitude Scale (1975) to the total fifth grade population. The attitude scale was administered in an intact classroom setting. Twenty-four statements about reading were read by the investigator and the

subjects responded to each statement by marking one of the five categories on a Likert-type scale (1967). The attitude scores were tabulated and categorized as negative or positive. The positive category included all scores in the upper one-third of the scale, while scores in the lower one-third of the scale represented a negative attitude.

The cumulative record cards were the source of the following information: achievement test score, intelligence quotient, sex, occupation of parent, the factor of grade retention, and the level of grade retention (if any). These data were collected for each subject. After collecting the data, the names were removed from the score sheets to insure the confidentiality of each subject's scores.

A statistical analysis was conducted to answer the questions proposed for this study. The statistical procedures used included: the biserial correlation, the Pearson product-moment correlation, the Spearman rank-difference correlation, the point-biserial correlation, and the contingency correlation. The statistical procedure used to answer each question depended upon the form of the data used.

As a result of the pilot study, one procedure was changed on the Heathington Intermediate Attitude Scale (1975). Items number (7) and (11) contain the word "seldom." The subjects appeared to have trouble determining their feelings concerning these statements. This observation led the investigator to substitute the words "hardly ever" for the word "seldom."

II. SELECTION OF THE SUBJECTS

Opportunity for participation in this study was given to the total fifth grade population in the Blount County, Tennessee school system. In the 1976-77 school year, 912 fifth grade students were enrolled in the 20 Blount County elementary schools. Geographically the Blount County system lies in the foothills of the Great Smoky Mountains in East Tennessee. The organizational pattern of the schools is basically of the self-contained nature, in that the classroom teacher provides instruction for each discipline with specialized instruction for the academically disabled child. The number of fifth grade classrooms in a single school ranged from one in the smaller schools to four in the largest school.

Of the 912 beginning subjects, only 332 were included in the final study. Five hundred and thirty-eight failed to acquire parental permission and 42 of those who did participate were eliminated because of insufficient data. The final 332 subjects (143 males and 189 females) represent various levels of intelligence, socioeconomic status, and reading ability.

The intelligence quotient of the subjects ranged from 61 to 140 as determined by the Otis-Lennon Mental Ability Test, Elementary II-Form J (1967). When the subjects scores were categorized into above average (111 and above), average (90-110), and below average (89 and below), there were 83 in the above average category, 183 in the average category, and 66 in the below average category.

Classroom teachers administered the intelligence test during the 1975-76 school year, and the scores were obtained from the subjects' cumulative records.

Various levels of socioeconomic status were represented in the subjects studied. These categories were determined by the Anne Roe Two-Way Classification System (Madden and others, 1956). The parent's occupation was secured from the cumulative record of each child studied. Of the subjects studied, 163 were determined to be of low socioeconomic status, 151 fell into the middle socio-economic class, and 18 represented the high socioeconomic level.

The subject's success or failure in reading was determined by the total reading score on the Stanford Achievement Test, Intermediate Level II-Form A (Madden and others, 1973). The group testing done by classroom teachers in early April, 1977 provided this score which was taken from the cumulative record of each subject. The subject was termed a success when he or she scored 9.0 or above on the achievement test with no record of grade retention. Fifty-eight subjects fell into the success category.

Failure was identified by two measures. First, the subject was termed a failure if he scored 4.0 or below on the Stanford Achievement Test, Intermediate Level II-Form A (Madden and others, 1973). The factor of grade retention was the second measure of failure. If the subject had been retained at sometime during the total school experience, he fell into the "failure" category. Thirty-six subjects scored 4.0 or below on the achievement test and 44

subjects had been retained at sometime during the school experience. Twenty-eight showed grade retention at the primary level and 16 had been retained at the intermediate level. Eighteen subjects were identified by both measures of failure, grade retention and an achievement score of 4.0 or below.

Each subject's attitude toward reading was termed "positive" or "negative" as a result of their score on the Heathington Intermediate Attitude Scale (1975). The investigator administered this scale to the subjects in April 1977. The subjects scoring in the upper one-third of the scale were considered to have a positive attitude, while the subjects scoring in the lower one-third reflected a negative attitude toward reading. These categories were assigned as a result of the fact that no cut off points had been designated in the Heathington scale to distinguish between positive and negative attitude. It appeared logical to use the above method to clearly distinguish the extreme ends of the scale.

III. SELECTION OF MEASUREMENT INSTRUMENTS

The Heathington Intermediate Attitude Scale (1975) was selected to determine the reading attitude of each subject. It was appropriate for this study in that it was designed specifically for grades 4-6. Children of grade levels 4-6 were involved in the construction of the scale in that children were interviewed and asked to describe someone who liked to read and someone who disliked reading. These descriptions were used in the formulation of items for the scale. The Heathington scale includes 24 statements about reading (see

Appendix C). The subjects responded to each statement by marking a Likert-type scale (1967) (see Appendix C) which included five choices (strongly disagree, disagree, undecided, agree, strongly agree). A score of 5 was assigned for a very positive response, 4 for a positive response, 3 for a neutral or undecided response, 2 for a negative response, and 1 for a very negative response. On nine of the items (numbers 2, 6, 10, 14, 15, 16, 20, 21, 23), a score of 5 was given for the response "strongly agree", 4 for "agree," 3 for "undecided," 2 for "disagree," and 1 for "strongly disagree." On the remainder of the statements a score of 5 was given for a response of "strongly disagree," 4 for "disagree," 3 for "undecided," 2 for "agree," and 1 for "strongly agree."

The validity of the Heathington scale was checked by two measures. First, the means of two groups were compared. The classroom teachers were asked to identify five students who appeared to have a very positive attitude toward reading. The "means of 81.00 (positive) and 69.6 (negative) were found and a t of 2.36, p of .02" (Heathington, 1975, p. 75). Second, an "item-analysis was used to determine if the items were discriminating between those respondents with positive attitudes and those with negative attitudes" (p. 51). Based on the results of a correlation coefficient, the least desirable items were removed.

Reliability of the Heathington scale was checked by the test-retest method. There was a two-week interval between the two testing periods. The r for the scale was .87.

The Stanford Achievement Test, Intermediate Level II-Form A (Madden and others, 1973) was used to determine a reading achievement score for each subject. The Stanford test was chosen for convenience and economy. It also met the needs of this study. It was convenient and economical in that it was used in the Blount County system to determine the achievement level of all fifth grade students. The tests were provided by the Blount County system and administered by the classroom teachers. It met the needs of this study because it provided a total reading score for each subject. For the purpose of this study, the total reading score was used with the factor of grade retention to determine the subject's success or failure in reading. The total reading score was arrived at by combining the reading score and the word study score.

According to Karmel (1970, p. 92), content validity is of uppermost importance in an achievement test. A test is believed to have content validity when "its content represents the curricular goals of those using the test" (Karmel, 1970). To determine this validity in the Stanford Achievement Test, a national tryout program was conducted to determine which items were appropriate for the test. Selected schools throughout the country were invited to participate in the tryout program. The schools were selected to represent "various population statistics of the United States such as city size, geographic location, median family income, median years of schooling, and enrollment" (Madden and others, 1973, p. 8). The national sample included 61,000 subjects in 1445 classrooms representing

47 school systems across the country. For the construction of the final form, item discrimination indices based on the "upper" and "lower" 27 percent were obtained and a biserial correlation was calculated.

> The content of the final forms of each test was selected in such a way that the final tests conform to the original specifications with respect to such criteria as objectives measured and relative emphases, appropriateness of difficulty in the grades for which the tests are intended . . . (Madden and others, 1973, p. 9).

The reliability of the Stanford Achievement Test was determined by two coefficients, the Spearmen-Brown Formula and the Kuder-Richardson Formula 20. The Spearman-Brown coefficient was .95 for reading comprehension and .96 for word study. The Kuder-Richardson revealed a coefficient of .94 for reading comprehension and .95 for word study (Madden and others, 1973).

The scores obtained on the Otis-Lennon Mental Ability Test, Elementary II-Form J (1967) were used to designate the intelligence quotient of each subject. The Otis-Lennon test measures the verbal, numerical and symbolic reasoning abilities of the child. The Otis-Lennon intelligence test was used in this study for convenience and economy. The test was administered to the subjects in April, 1976 by the classroom teachers. It was a system-wide testing program for fourth grade students in the Blount County school system.

The validity of the Otis-Lennon Mental Ability Test has been evidenced in such methods as predicting school grades and achievement test scores, and the relationship between the Otis-Lennon

Tests and other accepted measures of mental ability. An item-analysis program was conducted in the selection of items for the final form. The program involved approximately 20,000 pupils representing 22 school systems drawn from all geographic regions in the United States. The sample included subjects with various social backgrounds. The final form of the test included "only those items meeting rigorous specifications with respect to content, difficulty, and discrimination . . .." (Otis-Lennon, 1967, p. 23).

Reliability coefficients for the Otis-Lennon Mental Ability Test include a split-half, .94; Kuder-Richardson, .93; and Alternate-Forms, .89 (Otis-Lennon, 1967).

The Anne Roe Two-Way Classification of Occupations (1956) was used to determine the socioeconomic level of each subject because of its applicability to the research indicated. The system offered a varied breakdown of occupations that could be used with the minimal amount of data collected from the subject's cumulative record. In view of the large number used in the study, it was not feasible to use a detailed scale involving interviews with the parents of each subject. The Anne Roe Two-Way Classification of Occupations did not require this involvement.

In the Anne Roe system, occupations are classified according to both "group" and "level." The "group" classification indicates the primary focus of an activity or interest. The "group" sub-divisions represent eight areas:

I. Service—occupations "primarily concerned with . . . attending to the personal tastes, needs, and welfare of other persons." Occupations from the Dictionary of Occupational Titles (DOT) Code 0 and most of those in Code 2 are included in this category.

II. Business Contact—occupations "primarily concerned with the face-to-face sale of commodities, investments, real estate, and services." Occupations in this group are included in the Code 2 in the DOT.

III. Organization—"managerial and white-collar jobs in business, industry, and government . . . concerned primarily with the organization and efficient functioning of commercial enterprises and government activities." Occupations included in this "group" are most of the DOT Codes "0-4" through "0-9" and "1-0" through "1-9." This group includes the largest number of occupations.

IV. Technology—"occupations concerned with the production, maintenance, and transportation of commodities and utilities." These occupations are found in the DOT Codes "0-4" through "0-9" for upper level occupations and the others are found in Codes "4-, 5-, 6-, 7-, 8-, and 9."

V. Outdoor—occupations included here are "primarily concerned with the cultivation, preservation, and gathering of crops, of marine or inland water resources, of mineral resources, of forest products, and of other natural resources, and with animal husbandry." These occupations include the DOT Code 3 listings.

VI. Science—"occupations primarily concerned with scientific theory and its application under specified circumstances other than technology." Occupations in this group are found in the DOT Code 0.

VII. General Cultural—occupations "primarily concerned with the preservation and transmission of the general cultural heritage." These include occupations in education, journalism, ministry, law, and linguistics. The DOT Code for these occupations is 0.

VIII. Arts and Entertainment—occupations "primarily concerned with the use of special skills in the creative arts and in the field of entertainment." These occupations are found in the DOT under Code "0-0" through "0-6" (Roe, 1956, pp. 145-147).

The "level" subdivisions of the Roe system are based on degrees of "responsibility, capacity, and skill." These categories have an emphasis on responsibility. The level of responsibility indicates problems encountered and difficulty of decisions to be made. The "level" of the Roe system includes six categories:

1. Professional and Managerial 1: Independent Responsibility. Occupations in this category represent the highest authority and are based on the following criteria:

    a. Important, independent, and varied responsibilities.
    b. Policy-making.
    c. Education: when high-level education is relevent . . . it is at the doctoral level or the equivalent.

2. Professional and Managerial 2: The difference between level 1 and level 2 is one primarily of degree. Autonomy may be present in both, but with less responsibilities in level 2.

3. Semi-Professional and Small Business. For this level, three suggestions for criteria are:

a. Low-level responsibility for others.
b. Application of policy, or determination for self only . . .
c. Education, high school plus technical school or the equivalent.

4. Skilled. This level requires apprenticeship or other special training or experience.

5. Semi-Skilled. These occupations require some training and experience but less than the occupations in level 4.

6. Unskilled. These occupations require no special training or education. The worker may simply be able to follow simple directions and perform simple repetitive actions (Roe, 1956, pp. 149-150).

For the purpose of this study, the six levels of the Anne Roe Two-Way Classification of Occupations (1956) were converted into three by collapsing the top two, Professional and Managerial 1 and 2 into one; level 3-SemiProfessional and Small Business and level 4—Skilled into one; and level 5—Semi-Skilled and level 6—Unskilled into one. This modified form of the Anne Roe scale includes the categories of low, medium, and high.

The occupation of each subject's parent was then secured from the cumulative record card and categorized into low, medium, or high socioeconomic status as determined by the modified form of the Anne Roe Two-Way Classification of Occupations.

IV. PROCEDURES

After permission to conduct the study was granted by the Blount County Board of Education, the principals were briefed on the Heathington Intermediate Attitude Scale (1975), the time needed to administer it, and the information to be gathered from the cumulative records.

In March 1977, a letter (see Appendix B) was designed and sent to the parents of each fifth grade student in the Blount County, Tennessee school system. The letter explained briefly what the investigator would do and asked permission for their child to be allowed to participate in the research project. Only those subjects securing parental permission were included in the study.

In early April 1977, the investigator went into the schools to administer the attitude scale (see Appendix C). The scale was explained to the students who had acquired parental permission. They were given a choice in whether or not they would participate. The Heathington Intermediate Attitude Scale (1975) was administered only to those students who chose to participate.

The research then collected pertinent information from the cumulative record card of each participant. The information necessary to answer the questions designed in this study included achievement test score, intelligence quotient, parent occupation, and level of grade retention (if any). The attitude scale was scored to determine a negative or positive attitude for each subject.

After the data were collected (see Appendix D), a statistical analysis was conducted in an effort to answer the questions of this study. The statistical procedures used to analyze the data include the biserial correlation, the Pearson product-moment correlation, the Spearman rank-difference correlation, the point-biserial correlation, and the contingency correlation.

The biserial correlation is designed to analyze data when one variable is in the form of continuous scores and the other variable is in the form of an artificial dichotomy (Cornell, 1956). The biserial correlation procedure (Cornell, 1956) was employed to analyze the data pertaining to questions number 1, 2, 3, and 4 of this study. They were:

1. Is there a significant relationship between success or failure in reading and attitude toward reading?
2. Is there a significant relationship between the factor of grade retention and attitude toward reading?
3. Is there a significant relationship between the level at which the child was retained and his attitude toward reading?
4. Is there a significant relationship between the intellectual ability of children and their attitude toward reading?

The Pearson product-moment correlation is a parametric procedure to be used when both variables are in the form of continuous scores (Guilford and Fruchter, 1973). The product-moment procedure (Nie and others, 1970) was also employed to analyze the data pertaining to question number 4 of this study.

The data pertaining to question number four was again analyzed by a nonparametric design, the rank-difference correlation designed by Spearman (Nie and others, 1970). The data were assigned ranks to meet the assumption of this procedure (Guilford and Fruchter, 1973).

The point-biserial procedure (Nie and others, 1970), was employed to analyze the data pertaining to question number 5, "Is there a significant relationship between sex and reading attitude?" The data met the assumption of the point-biserial that one variable be in the form of a true dichotomy and the other variable be in the form of continuous scores (Guilford and Fruchter, 1973).

The nonparametric contingency correlation (Nie and others), was employed to analyze the data concerning question number 6, "Is there a significant relationship between socioeconomic status and attitude toward reading?" The contingency correlation procedure assumes that both variables are in the form of 2 or more categories (Siegel, 1956). For the purpose of this procedure, the attitude scores were converted to categories and expressed as negative or positive.

V. SUMMARY

This chapter contained an account of the pilot study, a description of the subjects, selection and description of the measurement instruments, and the procedures used to execute the research study.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

I. INTRODUCTION

In order to determine if a significant relationship existed between reading attitude and factors such as success or failure in reading, grade retention, level of grade retention, intellectual ability, sex, and socioeconomic status, statistical analyses were conducted on data relative to each factor.

The reading attitude of 332 subjects was determined by the Heathington Intermediate Attitude Scale (1975). Success and failure in reading were determined by the Stanford Achievement Test, Intermediate Level II-Form A (Madden and others, 1973), and the factor of grade retention. The Otis-Lennon Mental Ability Test, Elementary II-Form J (1967) was the measure used to determine intellectual ability. Socioeconomic status was determined by the Anne Roe Two-Way Classification of Occupations (1956). The factors of grade retention and level of grade retention (if any) were taken from the subjects' cumulative records.

II. QUESTION ONE

The first question asked, "Is there a significant relationship between success or failure in reading and attitude toward reading?"

An analysis of the reading attitude scores (see Table I) of the subjects termed "success," and those termed "failure" revealed

TABLE I

SUCCESS* OR FAILURE (GRADE RETENTION OR ACHIEVEMENT SCORE)**
ATTITUDE TOWARD READING

	Success	Failure	N
N	58	62	120
Mean	95.1034	74.7742	

*An achievement score of 9.0 or above and no record of grade retention.

**Grade retention or an achievement score of 4.0 or below.

r_b 0.7700

z 6.73076

$p < 0.001$

Data was gathered in the spring of 1977.

a mean score of 95.1034 for those subjects falling into the success category and a mean of 74.7742 for those falling into the failure category. A biserial correlation was performed to determine the correlation, if any, between success or failure in reading and attitude toward reading. the results revealed r_b 0.7700. A z score revealed a significance at 0.001 level of confidence.

When grade retention alone identified failure (see Table II), the reading attitude scores of 44 subjects who had been retained were correlated with the reading attitude scores of those students termed "success." A biserial of r_b 0.7722 and a z score of 6.126 indicated a significant relationship between success or failure in reading and attitude toward reading. These results were significant at $p < 0.001$.

When a score of 4.0 or below on the Stanford Achievement Test, Intermediate Level II-Form A (Madden and others, 1973) was used alone to identify failure (see Table III), a r_b 0.8601 and z of 6.5276 was found to be significant at $p < 0.001$.

Eighteen of the subjects scored 4.0 or below on the achievement test and had been retained a grade level sometime during their school experience. The reading attitude scores of these 18 subjects were correlated with the subjects scoring 9.0 or above on the achievement test (N 58). A biserial procedure yielded r_b 0.9327 with a z of 5.88 indicating significance at $p < 0.001$ (see Table IV).

Based on these data, it is assumed that there is a significant relationship between success or failure in reading and attitude

TABLE II

SUCCESS* OR FAILURE (GRADE RETENTION)**
AND ATTITUDE TOWARD READING

	Success	Failure	N
N	58	44	102
Mean	95.1034	75.0000	

*An achievement score of 9.0 or above and no record of grade retention.

**Grade retention.

r_b 0.7722

z 6.126

$p < 0.001$

Data was gathered in the spring of 1977.

TABLE III

SUCCESS* OR FAILURE (ACHIEVEMENT SCORE)**
AND ATTITUDE TOWARD READING

	Success	Failure	N
N	58	36	94
Mean	95.1034	72.1667	

*An achievement score of 9.0 or above and no record of grade retention.

**An achievement score of 4.0 or below.

r_b 0.8601

z 6.5276

$p < 0.001$

Data was gathered in the spring of 1977.

TABLE IV

SUCCESS* OR FAILURE (GRADE RETENTION AND ACHIEVEMENT SCORE)** AND ATTITUDE TOWARD READING

	Success	Failure	N
N	58	18	76
Mean	95.1034	70.1111	

*An achievement score of 9.0 or above and no record of grade retention.

**Grade retention and an achievement score of 4.0 or below.

r_b 0.9327

z 5.88

$p < 0.001$

Data was gathered in the spring of 1977.

toward reading in the 332 subjects studied.

III. QUESTION TWO

The second question asked, "Is there a significant relationship between the factor of grade retention and attitude toward reading?"

An analysis of the reading attitude scores (see Table V) revealed a mean of 75.000 for those students who had been retained and a mean of 83.9514 for those students who had not been retained. A biserial correlation of these means yielded r_b -0.2877 and a z of 3.308.

Based on these data there is a significant negative correlation between grade retention and attitude toward reading. The correlation is significant at the $p < 0.001$ level of confidence.

IV. QUESTION THREE

The third question asked, "Is there a significant relationship between the level at which a child is retained and his attitude toward reading?"

An analysis of the data (see Table VI) revealed a mean of 75.75 for those students retained at the primary level. A mean of 73.69 was found for those students retained at the intermediate level. A biserial procedure was used to correlate the data. The results were r_b 0.0873 with a z of 0.45265.

Based on these data, there was no significant relationship between the level at which a child was retained and his attitude toward reading.

TABLE V

GRADE RETENTION AND ATTITUDE
TOWARD READING

	Retained	Not Retained	N
N	44	288	332
Mean	75.0000	83.9514	

r_b -0.2877

z 3.308

$p < 0.001$

Data was gathered in the spring of 1977.

TABLE VI

LEVEL OF GRADE RETENTION AND
ATTITUDE TOWARD READING

	Primary	Intermediate	N
N	28	16	44
Mean	75.7500	73.6875	

r_b 0.0873

z 0.45265

Not significant

Data was gathered in the spring of 1977.

V. QUESTION FOUR

The fourth question asked, "Is there a significant relationship between the intellectual ability of children and their attitude toward reading?"

The data relative to this question were analyzed first by including the reading attitude score and the intelligence quotient of the 332 subjects (see Table VII). A second analysis included only the attitude scores of those students with above average intelligence scores (111-140) and below average intelligence scores (61-89) (see Table VII).

In the first analysis a Pearson product-moment correlation yielded r 0.3998, $p < 0.001$. A nonparametric Spearman rank-difference correlation revealed rho 0.4073, $p < 0.001$. Based on these data, both the Pearson r and the Spearman rho indicated a highly significant positive relationship between intellectual ability and attitude toward reading.

The second analysis correlating only the scores of the students with above average and below average intelligence quotients revealed r_b 0.7204 with a z 5.86. These results were significant at $p < 0.001$.

VI. QUESTION FIVE

The fifth question asked, "Is there a significant relationship between sex and reading attitude?"

An analysis of the reading attitude scores (see Table VIII) revealed a range of 45-110 for the 143 males and a range of 41-119

TABLE VII

INTELLIGENCE QUOTIENT AND
ATTITUDE TOWARD READING

	Below average (61-89)	Average (90-110)	Above average (111-140)	N
N	67	182	83	332
Mean	74.5075		93.5542	

$\underline{r}$ 0.3998	r_b 0.7204
$\underline{p} < 0.001$	$\underline{z}$ 5.86
$\underline{\text{rho}}$ 0.4073	$\underline{p} < 0.001$
$\underline{p} < 0.001$	

Data was gathered in the spring of 1977.

TABLE VIII

SEX AND ATTITUDE TOWARD READING

	Number	Range	Mean
Males	143	45-110	79.7
Females	189	41-119	85.0

r_{pbi} 0.1582

$p < 0.002$

Data was gathered in the spring of 1977.

for the 189 females. The point-biserial procedure was used to determine a result of r_{pbi} 0.1582, $p < 0.002$.

In comparison of the means, males (79.7) and females (85.0), it was found that girls have a more positive attitude toward reading than do boys at the fifth grade level. Based on these data, there was a significant positive correlation between sex and attitude toward reading in the 332 subjects studied.

VII. QUESTION SIX

The sixth question asked, "Is there a significant relationship between socioeconomic status and attitude toward reading?"

An analysis of the data (see Table IX) revealed that 163 subjects fell into the lower socioeconomic level. The attitude scores of these students ranged from 31 to 119 with 8.6 percent reflecting a negative attitude toward reading and 35.6 percent representing a positive attitude. One-hundred and fifty-one subjects fell into the middle socioeconomic level with 2.6 percent holding a negative attitude toward reading and 45.0 percent reflecting a positive attitude. The high socioeconomic level included 18 subjects with a 5.6 percent indicating a negative attitude toward reading and 61.1 percent holding a positive attitude toward reading. These data yielded a contingency coefficient of 0.1732, significant at $p < 0.05$. Based on these data, there was a significant relationship between socio-economic status and attitude toward reading in the 332 subjects studied.

TABLE IX

SOCIOECONOMIC STATUS AND
ATTITUDE TOWARD READING

Socioeconomic Level	Number	Percent of Population	Attitude Range	Negative	Positive
Lower	163	49.1	41-119	8.6	35.6
Middle	151	45.5	48-115	2.6	45.0
Upper	18	5.4	52-118	5.6	61.1

N 332

C 0.17032

$p < 0.05$

Data was gathered in the spring of 1977.

VIII. SUMMARY

Fifth grade students' attitude scores were correlated with their achievement scores, the factor of grade retention, level of grade retention, intelligence quotient, sex, and socioeconomic status to determine if a significant relationship existed among attitude toward reading and any one of these factors.

The Stanford Achievement Test, Intermediate Level II-Form A (Madden and others, 1973) was used to measure the level of achievement, the Otis-Lennon Mental Ability Test, Elementary II-Form J (1967) was used to measure intellectual ability, and the Anne Roe Two-Way Classification of Occupations (1956) was used to determine the socioeconomic level. Information relevant to the factors of grade retention, level of grade retention, and sex was acquired from the cumulative record of each child.

A population of 332 fifth grade students from the Blount County school system, Blount County, Tennessee was used in the study. These subjects included 143 males and 189 females.

A correlation procedure was conducted to answer each question designed in the study. The statistical procedure chosen to analyze the data relevant to each question depended on the form of the data. It was found from this analysis that:

1. There was a significant correlation between success or failure in reading and attitude toward reading.
2. There was a significant correlation between grade retention and attitude toward reading.

3. There was no significant correlation between level of grade retention and attitude toward reading.
4. There was a significant correlation between intellectual ability and attitude toward reading.
5. There was a significant correlation between sex and attitude toward reading. Girls held a more positive attitude toward reading than did boys in the 332 subjects studied.
6. There was a significant correlation between socioeconomic level and attitude toward reading.

CHAPTER V

SUMMARY, CONCLUSIONS, DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

Teachers in the past have held the belief that children's attitudes toward a task or discipline are affected by their ability to achieve in the subject attempted. There is a limited number of research studies dealing with achievement and reading attitude, however. No studies were found that defined success and failure as it has been defined in the present study. In addition to the above variables, this study also analyzed data relevant to factors such as grade retention, level of grade retention, intellectual ability, sex, and socioeconomic status.

I. SUMMARY

The subjects for this study consisted of 332 fifth grade children. These subjects represented varying levels of intelligence, socioeconomic status, and reading ability.

The intelligence quotient of the subjects ranged from 61 to 140 as determined by the Otis-Lennon Mental Ability Test, Elementary II-Form J (1967). When the subjects' scores were categorized into above average (111 and above), average (90-110), and below average (89 or below), there were 83 in the above average category, 182 in the average category, and 67 in the below average category. Classroom teachers administered the intelligence test during the

1975-76 school year, and the scores were obtained from the subjects' cumulative records.

Various levels of socioeconomic status were represented in the subjects studied. These categories were determined by the Anne Roe Two-Way Classification of Occupations (1956). The parent's occupation was secured from the cumulative record of each child studied. Of the subjects studied, 163 were determined to be of low socioeconomic status, 151 fell into the middle socioeconomic class, and 18 represented the high socioeconomic level.

The subject's success or failure in reading was determined by the total reading score on the Stanford Achievement Test, Intermediate Level II-Form A (Madden and others, 1973). The group testing done by classroom teachers in early April 1977 provided this score. The score was taken from the cumulative record of each subject. The subject was termed a success when he scored 9.0 or above on the achievement test with no record of grade retention. Fifty-eight subjects fell into the "success" category.

Failure was identified by two measures. First, the subject was termed a failure if he scored 4.0 or below on the Stanford Achievement Test, Intermediate Level II-Form A (Madden and others, 1973). The factor of grade retention was the second measure of failure. If the subject had been retained at sometime during the total school experience, he fell into the "failure" category. Thirty-six subjects scored 4.0 or below and 44 subjects had been retained at sometime. Twenty-eight showed grade retention at the primary

level and 16 had been retained at the intermediate level. Eighteen subjects were identified by both measures of failure, grade retention and an achievement score of 4.0 or below. There were 143 males and 189 females participating in the study.

Each subject's attitude toward reading was termed "positive" or "negative" as a result of their total score on the Heathington Intermediate Attitude Scale (1975). The investigator administered this scale to the subjects in April 1977. The subjects scoring in the upper one-third of the scale were considered to have a positive attitude, while the subjects scoring in the lower one-third of the scale reflected a negative attitude toward reading. The questions asked in this study included:

1. Is there a significant relationship between success or failure in reading and attitude toward reading?
2. Is there a significant relationship between the factor of grade retention and attitude toward reading?
3. Is there a significant relationship between the level at which the child was retained and his attitude toward reading?
4. Is there a significant relationship between the intellectual ability of children and their attitude toward reading?
5. Is there a significant relationship between sex and reading attitude?
6. Is there a significant relationship between socioeconomic status and attitude toward reading?

The research tools were selected on the basis of the question to be answered and the form of the data. These procedures are discussed below.

The data relevant to questions number 1, 2, and 3 were analyzed by means of the biserial correlation. The biserial correlation, as well as the Pearson product-moment correlation, and the Spearman rank-difference correlation were used to analyze the data relevant to question number 4. The point-biserial correlation was employed to analyze the data pertaining to question number 5. The data relevant to question number 6 were analyzed by means of the contingence correlation. A z score was employed to determine the significance of the correlation yielded by the biserial procedure. The significancy level was determined by the Statistical Package for the Social Sciences (SPSS) computer program (Nie and others, 1970) for the Pearson product-moment, Spearman rank-difference, and point-biserial correlations.

II. CONCLUSIONS

On the basis of the data presented for the 332 subjects studied, the following conclusions were drawn.

1. A significant positive correlation was found to exist between attitude toward reading and success or failure in reading.
2. A significant positive correlation was found to exist between attitude toward reading and the factor of grade retention.

3. The level at which a child was retained did not appear to affect his attitude toward reading.
4. Females had a significantly more positive attitude toward reading than did males.
5. A more positive attitude toward reading was found in children with higher intellectual ability.
6. A more positive attitude toward reading was found in children from middle and upper socioeconomic levels than in the lower socioeconomic level.

III. DISCUSSION

It should be noted in the beginning that the results of this study may be applicable only to the 332 subjects studied since attitudes tend to be highly individual and specific to a given situation. The findings from the data gathered in this study, however, add to the present body of knowledge in the ways discussed below.

The first three questions proposed in the study dealt with success or failure in reading and attitude toward reading. Success and failure were identified by two measures. Success was indicated when the subject scored 9.0 or below on the achievement test and had no record of grade retention. There were 58 subjects meeting both criteria of success. Failure was indicated when the subject scored 4.0 or below on the achievement test and had been retained a grade level sometime during his school experience. When the subjects for the failure category were identified by both measures,

a significant correlation was found to exist. There were, however, only 18 subjects meeting both criteria of failure. In view of this limited number, the significance of the correlation is questionable. When identifying failure by either grade retention or an achievement score of 4.0 or below, there were 62 subjects meeting at least one of these criteria. From these data it is assumed that there is a significant correlation (.77) between success or failure in reading and attitude toward reading. Grade retention also correlated significantly (-.2877) with attitude toward reading. But the level at which a child was retained was not significantly correlated with attitude toward reading (.0873).

Up to this point, the investigator held the belief that a negative attitude toward reading was less likely to be formed when a child was retained at the primary level than when promoted to a grade level beyond where he could experience success in reading. Based on this study, however, more research is needed which includes diverse populations before valid conclusions can be drawn concerning grade retention and attitude toward reading.

Intellectual ability, in this study, was a significant correlate with attitude toward reading when analyzing the total population and when looking only at the extreme ends of the population. The correlations were: $\underline{r}$ 0.339 and $\underline{rho}$ 0.4073 for the total population and r_b 0.7204 for the extreme ends of the population. Two possible reasons for this high correlation between intellectual ability and attitude toward reading are: first, it is safe to assume that

the more intellectually capable child will tend to be more successful in academic endeavors. This factor then may indicate that the significant correlation between intelligence and reading attitude may reflect the significant correlation found between success or failure in reading and attitude toward reading. Second, the more intellectually capable child may wish to impress the investigator and, therefore, react in a more positive manner.

Other studies correlating intellectual ability with reading attitude found little or no relationship between the two. For example, the study of Hansen (1969) using 48 fourth grade students found that intelligence "is not a valid predictor of reading attitude" (p. 22). Similar results were found by Groff (1962) when studying 305 fifth and sixth grade students.

Based on the 332 subjects studied, it appears that sex is a significant factor in attitude toward reading. Fifth grade girls showed a significantly more positive attitude toward reading than did fifth grade boys, r_{pbi} 0.1582. These results are in keeping with the findings of Harrington (1972), Hansen (1969), Askov and Fischbach (1973), Diehl (1972), and Powell (1972). Findings of Greenberg (1965), Jackson and LaHaderne (1967) and Puryear (1975), were, however, contrary to the findings of the present study.

The final factor dealt with in the present study was socioeconomic status and attitude toward reading. From the data collected, socioeconomic status appears to be a significant factor in attitude toward reading. These, however, may be unreliable results in view

of the fact that the exact occupation of the parent (see Appendix E) was not always clearly stated on the child's cumulative record and, therefore, any results concerning the factor of socioeconomic level and attitude toward reading suggest that there is probably no significant relationship between these variables.

IV. IMPLICATIONS AND RECOMMENDATIONS

Implications and Recommendations for Educators

Based on the findings of this study, it is recommended that educators provide a reading program that will ensure the success of each child. This is especially important for those who have been retained because it probably requires more effort on the part of the teacher. Since the findings suggest that grade retention, as well as below grade level performance, were significant factors in reading attitude, it is important that educators be more aware of the individual strengths and weaknesses of each child. With this concern in mind, authorities at the decision-making level can strive to provide an organizational pattern that will emphasize the individual child's strengths, giving them the needed freedom to progress and succeed at their own rate without acquiring a feeling of failure by repeating grade levels. The investigator feels that this must be initiated at the decision-making level and woven into the organizational pattern of the school in view of the present threat from the public to teachers who promote children who are

not prepared for instruction at the next grade level. If, however, grade levels were obscure and the needs of the child paramount, there would be no need for conflict between parents and the system.

Implications and Recommendations for Researchers

1. Based on the findings of this study, it is recommended that correlation studies be conducted in which a large sample of retained children working on or above grade level can be correlated with those who have been retained and who are continuing to perform below grade level. The investigator feels that a study of this nature would be beneficial in confirming or discounting the findings in the present study. For instance, what about the children who have been retained, yet now at the fifth grade level they are achieving at the 8.3 level? Perhaps a study such as the one described above would substantiate or refute the investigator's feelings that it is the child's ability to succeed that influences his attitude toward reading and not the factor of grade retention in itself.

2. It is recommended that a study be designed to include the attitude scores of subjects who score below grade level in reading but who have not been retained. A correlation of these achievement scores with the subjects' attitude scores would help to determine whether it is poor performance or grade retention influencing a negative attitude toward reading.

3. It is also recommended that a correlation study be conducted in which the factor of socioeconomic status can be more thoroughly

investigated and more clearly stated than was feasible in the present study. A more thorough investigation could look at the level of education attained by the parents, source of income (is it inherited, earned, salary, wages, etc.), type of house, and dwelling area, as well as, the specific occupation of the parent. With the number included in the present study, a project this involved was not feasible.

4. It is recommended that ethnographic research be utilized as a means of determining factors which may be influencing the attitude of our children. Ethnographic studies

> . . . would scrutinize the full range of activities involving reading instruction, as well as all other activities comprising the totality of classroom life. It would not only account for children and teacher abilities, backgrounds, attitudes, expectations, and personality characteristics; but it would also study and document the many interactions inherent in the teaching and learning process within that environment (Wolf and Tymitz, 1976, editorial).

In ethnographic studies, the researcher does not rely on large numbers but involves only a few children. There is much interaction between the researcher and the subjects. Research techniques include interviews, observation, and a range of "obtrusive and unobtrusive" measures. The purpose of the ethnographic study is not "to test each of the subjects but rather to understand exactly what they do in relating to each other and how that facilitates instruction." The ethnographic research approach is more indepth than the case study approach. The ethnographic approach represents what appears to be a fruitful way of looking at attitude (Wolf and Tymitz, 1976, editorial).

In the present study success and failure were correlated with reading attitude by means of a biserial procedure. It is recommended that the variable of success and failure be studied separately and completely independent of each other. An ethnographic study of success or failure would contribute much to the present limited amount of research in this area.

V. SUMMARY

Chapter five contained a summary of the findings and a statement of the conclusions drawn from the results. Also included was a discussion of the results, along with implications and recommendations for educators and researchers.

BIBLIOGRAPHY

BIBLIOGRAPHY

Askov, Eunice N., and Thomas J. Fischbach. "An Investigation of Primary Pupils' Attitudes Toward Reading," The Journal of Experimental Education, 41 (Spring, 1973), 1-7.

Bernstein, Margery R. "Right to Read Evaluation: Mamaroneck Public Schools, 1971-1972," (June, 1972), Eric, ED 069 735.

Bein, Jeanne. "Instructional Centers Hartford Nonpublic Schools. An Evaluation Report, 1974-1975," (August, 1975), Eric ED 111 914.

Botel, Mortan. Newer Techniques in the Supervision of Reading Instruction. Syracuse, New York: Syracuse University Press, 1957.

Cornell, Francis G. The Essentials of Educational Statistics. New York: John Wiley and Sons, Inc., 1956.

Diehl, John Alexander. "A Study of Grade Six Students' Attitude Toward Reading," Unpublished doctoral dissertaion, The University of Tennessee, 1972.

"Evaluation of the Communication Skills Centers (CSC) Project," (February, 1967), Eric ED 016 020.

Faust, Claire Edward. "A Study of the Relationship Between Attitude and Achievement in Selected Elementary School Subjects," Dissertation Abstracts, 23, 2752-2753, 1962.

Filler, Ronald Claude. "Effects of Socioeconomic Status on Attitudes Toward Reading," Unpublished masters thesis, The University of Tennessee, 1973.

Fliegler, L. A., and C. E. Bish. "Summary of Research on the Academically Talented Student," Review of Educational Research, 29 (December), 408-450.

Greenberg, Judith W., and others. "Attitudes of Children From a Deprived Environment Toward Achievement-Related Concepts," The Journal of Educational Research, 59 (October, 1965), 57-61.

Groff, Patrick J. "Children's Attitude Toward Reading and Their Critical Reading Abilities in Four Content Type Materials," The Journal of Educational Research, 55 (April, 1962), 313-314.

Guilford, J. P., and Benjamin Fruchter. Fundamental Statistics in Psychology and Education. New York: McGraw-Hill, 1973.

Hake, James M. "Covert Motivations of Good and Poor Readers," The Reading Teacher, 22 (May, 1969), 731-738, 741.

Hansen, Harlan S. "The Impact of the Home Literary Environment on Reading Attitude," Elementary English, 46 (January, 1969), 17-24.

Harrington, Alma Jean. "The Interrelationships Among Reading Achievement, Attitude Toward School, and Attitude Toward Reading for Third and Fifth Grade Pupils," Unpublished doctoral dissertation, State University of New York at Buffalo, 1972.

Heathington, Betty S. "The Development of Scales to Measure Attitudes Toward Reading," Unpublished doctoral dissertation, University of Tennessee, 1975.

Jackson, Philip W., and Henriette M. LaHaderne. "Scholastic Success and Attitude Toward School in a Population of Sixth Graders," Journal of Educational Psychology, 58 (1967), 15-18.

Kaluger, George, and Clifford J. Kolson. Reading and Learning Disabilities. Columbus, Ohio: Charles E. Merrill Publishing Co., 1969.

Karmel, Louis J. Measurement and Evaluation in the Schools. New York: The Macmillan Company, 1970.

Likert, Renis. The Human Organization: Its Management and Value. New York: McGraw-Hill, 1967.

Madden, Richard and others. Stanford Achievement Test. New York: Harcourt Brace Jovanovich, Inc., 1973.

Mingoia, Edwin. "Possible Causes of Underachievement in Reading," Elementary English. 39 (March, 1962), 220-223.

Nie, Norman H., and others. SPSS Statistical Package for the Social Sciences. New York: McGraw-Hill, Inc., 1970.

Orr, Robert Stewart, Jr. "The Effect of a Diagnostic-Prescriptive Individualized Reading Program on Attitudes Toward Reading and School of Remedial Junior High School Students," Dissertation Abstracts, 34, 4710-A-4711-A, 1973.

Otis, Arthur As., and Roger T. Lennon. Otis-Lennon Mental Ability Test. New York: Harcourt Brace Jovanovich, Inc., 1967.

Palardy, J. Michael. "What Teachers Believe—What Children Achieve," The Elementary School Journal, 69 (April, 1969), 370-374.

Powell, Annelle. "A Study of the Georgia Children's Book Award Program as a Factor in Influencing Attitudes Toward Reading, Reading Achievement, and the Amount of Reading of Fourth, Fifth, and Sixth Grade Students," Dissertation Abstracts, 33, 5587-A, 1972.

Puryear, Charles Crisp. "An Investigation of the Relationship Between Attitudes Toward Reading and Reading Achievement," Unpublished doctoral dissertation, University of South Carolina, 1975.

Ransbury, Molly Kayes. "An Assessment of Reading Attitude," Journal of Reading, 17 (October, 1973), 25-28.

Remer, Victor. "Take a Giant Step—A Remedial Reading Program in a Camp Setting," Child Welfare, 49 (May, 1970), 270-274.

Roe, Anne. The Psychology of Occupations, New York: John Wiley and Sons, Inc., 1956.

Siegel, Sidney. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill, 1956.

Wolf, Robert L., and Barbara L. Tymitz. "Ethnography and Reading: Matching Inquiry Mode to Process," Editorial. Reading Research Quarterly, 12 (1976-1977).

Wurster, Stanley R., and F. Austin Mathis, Jr. "Happiness Is Reading," (October, 1975), Eric ED 116 131.

APPENDIXES

APPENDIX A

APPENDIX A

March 23, 1977

Dr. L. Evans Roth
Vice Chancellor for Graduate
Studies and Research
404 Andy Holt Tower
The University of Tennssee
CAMPUS

Dear Dr. Roth:

Ms. Mary Margaret S. Dotson has complied with the changes recommended by the Committee on Research Participation for her research project entitled, "The Relationship Between Fifth Grade Children's Attitude Toward Reading and Factors such as Success or Failure in Reading, Socioeconomic Status, Sex, and Intelligence Quotient," CRP #294. Therefore, acting on behalf of the Committee I have approved this project.

The responsibility of the project director includes the following:

1. Prior approval from the Committee must be obtained before any changes in protocol are instituted.

2. Signed consent statements from each experimental subject must be kept for the duration of the project and for at least three years thereafter.

3. The Committee must be informed of any physical or psychological effects on subjects for reevaluation of the protocol approval.

4. A statement must be submitted (Form D) at 12-month intervals attesting to the current status of the project (protocol is still in effect, project is terminated, etc.)

The Committee wishes the project director success in her research endeavors.

Sincerely

/s/

William Konnert, Chairperson
Committee on Research Participation

WK:sa

cc: Ms. Mary M. S. Dotson
Dr. W. W. Wyatt

APPENDIX B

APPENDIX B

March, 1977

Parents,

The total fifth grade population of the Blount County school system has been chosen as the focal point of a research study.

The research will consist of administering a reading attitude scale to all intact fifth grade classrooms. Approximately 15 minutes per classroom will be needed. It will also be necessary to briefly review the permanent record of each child to collect data such as standardized tests scores, socioeconomic status, sex, and level of grade retention, if any. After the data have been collected, all names will be removed from the score sheets to insure the confidentiality of your child's records.

There will be no penalty for the nonparticipant, and your child may withdraw from the project at any time during the remainder of the school year ending June, 1977. At this time the project will be completed. The researcher will be glad to answer any questions concerning this study.

May we have permission to include your child in this research? If so, please sign below and return to his/her teacher. Thank you.

Sincerely,

/s/

Margaret Dotson
Teacher-Eagleton Elementary

I, hereby, give my permission for (child's name) _____ to participate in the above stated research project.

Parent signature _____

APPENDIX C

APPENDIX C

HEATHINGTON INTERMEDIATE ATTITUDE SCALE

The Intermediate Scale is composed of 24 statements about reading. The student is asked to mark whether he strongly disagrees, disagrees, is undecided, agrees, or strongly agrees with the statement read by the teacher. A score of 5 is given for a very positive response, a 4 for a positive response, a 3 for neutral or undecided response, a 2 for a negative resonse, and a 1 for a very negative response.

On nine of the items (numbers, 2, 6, 10, 14, 15, 16, 20, 21, 23), a very positive resonse is indicated by marking "strongly agree" and receives a score of 5. On the remaining 15 items, a response of "strongly disagree" indicates a very positive attitude and receives a score of 5. The possible range of scores is 5 × 24 (120) to 1 × 24 (24).

The following directions can be used in administering the intermediate scale:

"On your answer sheet, numbers on the right-hand column go from number 1 to number 14. Numbers on the left-hand column go from number 15 to number 24. Beside each number are five boxes. Over each box are one or two letters. SD stands for strongly disagree, D for disagree, U for undecided, A for agree, and SA for strongly agree. I will read certain statements to you and you are to mark an X in the box that shows how you feel. Suppose I said, "You enjoy eating chocolate candy. Which box would you mark? Someone might love chocolate candy and would mark 'strongly agree'; another person might enjoy it and mark 'agree.' Remember that everyone may not feel the same about the statements so make sure you mark how you feel. Mark only one box for each number. I'll read each statement two times. Are there any questions? Now listen carefully. Number 1 . . . ."

The Intermediate Scale also has groups of questions which can be used by classroom teachers to diagnose specific areas of reading attitudes.

They are as follows:

(1) Free reading in the classroom (items 5, 6, 15)
(2) Organized reading in the classroom (items 1, 24)
(3) Reading in the library (items 3, 4, 9, 17, 21)

(4) Reading at home (items 7, 10, 11, 20)
(5) Other recreational reading (items 12, 13, 23)
(6) General reading (items 2, 8, 14, 16, 18, 19, 22)

The scale items are:

(1) You feel uncomfortable when you're asked to read in class.
(2) You feel happy when you're reading.
(3) Sometimes you forget about library books that you have in your desk.
(4) You don't check out many library books.
(5) You don't read much in the classroom.
(6) When you have free time at school, you usually read a book.
(7) You seldom have a book in your room at home.
(8) You would rather look at the pictures in a book than read it.
(9) You check out books at the library but never have time to read them.
(10) You wish you had a library full of books at home.
(11) You seldom read in your room at home.
(12) You would rather watch TV than read.
(13) You would rather play after school than read.
(14) You talk to friends about books that you have read.
(15) You like for the room to be quiet so you can read in your free time.
(16) You read several books each week.
(17) Most of the books you choose are not interesting.
(18) You don't read very often.
(19) You think reading is work.
(20) You enjoy reading at home.
(21) You enjoy going to the library.
(22) Often you start a book, but never finish it.
(23) You think that adventures in a book are more exciting than TV.
(24) You wish you could answer the questions at the end of of the chapter without reading it.

NAME _____

	SD	D	U	A	SA
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					

M. A. _____

O. L. _____

S- E _____

S _____

G. R. _____

A _____

APPENDIX D

APPENDIX D

TABLE X

STUDENT DATA

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
1	9.5	124	Middle	F	No		97
2	3.5	86	Middle	F	No		96
3	8.3	115	Low	M	Yes	Intermediate	80
4	7.7	104	Low	F	No		75
5	9.5	112	Low	M	No		89
6	7.5	111	Low	F	No		93
7	10.5	117	Low	F	No		90
8	10.5	114	High	M	No		76
9	7.7	123	Middle	F	No		75
10	4.8	94	Low	F	No		73
11	9.0	98	Low	F	No		105
12	10.5	121	Middle	F	No		112
13	10.0	114	Middle	F	No		71
14	6.7	82	Low	M	No		82
15	8.1	102	Low	F	No		47
16	10.5	117	Middle	F	No		114
17	10.5	119	Middle	F	No		96
18	7.5	108	Middle	F	No		53
19	6.6	126	Middle	M	No		84
20	5.9	100	Low	F	No		74
21	4.3	85	Low	F	Yes	Primary	86
22	6.1	100	Low	F	No		85
23	7.9	100	Middle	F	No		69
24	4.2	82	Low	F	No		60

TABLE X (continued)

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
25	3.9	76	Middle	F	Yes	Intermediate	86
26	7.2	105	Low	F	No		119
27	6.6	116	Low	F	No		92
28	7.2	110	Low	F	No		107
29	5.0	76	Low	M	No		82
30	3.0	83	Low	M	No		84
31	7.7	119	Low	F	No		99
32	7.5	109	Low	M	No		82
33	3.8	72	Low	F	Yes	Primary	82
34	3.0	102	Low	F	No		78
35	6.6	100	Middle	M	No		78
36	5.5	124	Low	F	No		89
37	4.7	103	Low	F	No		87
38	4.7	98	Middle	F	No		91
39	5.7	103	Low	M	No		73
40	4.9	71	Low	F	Yes	Intermediate	75
41	4.8	82	Low	F	Yes	Primary	88
42	3.7	88	Middle	M	Yes	Intermediate	88
43	4.8	99	Low	F	No		98
44	4.4	91	Low	F	No		88
45	3.0	61	Low	M	Yes	Primary	57
46	4.1	94	Middle	M	No		49
47	5.4	98	Low	M	No		81
48	4.3	86	Middle	M	Yes	Primary	80

TABLE X (continued)

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
49	8.2	109	Low	F	No		79
50	5.6	102	Low	F	No		98
51	7.7	104	Low	M	No		107
52	4.1	86	Middle	F	Yes	Primary	80
53	4.3	79	Low	M	Yes	Intermediate	88
54	5.0	87	Middle	F	Yes	Primary	74
55	7.7	102	Low	M	No		93
56	5.6	99	Low	M	No		58
57	5.4	109	Low	M	No		72
58	6.3	98	Middle	M	No		90
59	3.7	79	Low	M	Yes	Primary	84
60	5.6	91	Low	F	No		84
61	6.5	101	Low	F	No		101
62	5.2	90	Low	M	No		57
63	7.2	104	Middle	F	No		90
64	8.6	101	Low	F	No		75
65	7.1	108	Low	F	No		75
66	7.0	131	Middle	F	No		93
67	8.2	132	Middle	F	No		90
68	3.7	83	Middle	M	Yes	Intermediate	67
69	7.0	105	Low	M	No		92
70	6.5	97	Low	M	No		47
71	4.0	83	Middle	M	Yes	Primary	85
72	3.9	84	Middle	F	Yes	Intermediate	63

TABLE X (continued)

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
73	5.8	91	Middle	F	No		84
74	4.6	79	Low	M	Yes	Primary	81
75	6.7	102	Middle	M	No		80
76	6.0	91	Middle	M	Yes	Primary	72
77	3.0	75	Low	M	Yes	Intermediate	47
78	10.5	115	Low	M	No		83
79	4.5	109	Low	M	No		53
80	7.1	107	Low	F	No		66
81	5.7	98	Low	M	No		58
82	6.3	103	Middle	F	No		95
83	5.2	87	Low	F	No		97
84	3.0	88	Low	M	No		59
85	5.3	104	High	F	No		59
86	7.7	103	Low	F	No		44
87	5.9	95	Low	F	No		61
88	6.8	96	High	M	No		52
89	7.9	105	Low	F	No		98
90	4.5	91	Low	M	No		101
91	8.2	123	Middle	F	No		106
92	7.7	107	Middle	F	No		88
93	6.3	107	Low	F	No		79
94	3.0	103	Low	F	Yes	Primary	71
95	7.1	94	Low	M	No		106
96	7.6	120	Low	F	No		88

TABLE X (continued)

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
97	5.1	80	Low	F	Yes	Primary	80
98	9.5	112	Middle	F	No		115
99	3.7	64	Low	M	No		81
100	5.5	106	Low	F	No		74
101	3.9	102	Low	F	No		49
102	6.6	100	Low	F	No		97
103	7.4	101	Low	F	No		109
104	6.0	96	Low	F	No		90
105	7.9	108	Low	F	No		89
106	6.6	105	Low	F	No		63
107	8.2	107	Middle	M	No		79
108	8.1	103	Low	M	No		95
109	3.0	82	Low	F	Yes	Intermediate	67
110	7/1	113	Middle	F	No		73
111	6.0	100	Middle	M	No		48
112	9.0	118	Middle	F	No		112
113	4.1	106	Middle	F	No		74
114	5.4	90	Low	F	Yes	Primary	65
115	5.8	83	Middle	M	No		70
116	3.8	95	Low	F	No		73
117	5.6	83	Low	M	Yes	Primary	61
118	4.5	83	Low	M	Yes	Primary	67
119	4.6	96	Low	M	Yes	Primary	62
120	3.0	79	Low	M	Yes	Intermediate	61

TABLE X (continued)

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
121	5.6	95	Middle	F	No		66
122	7.4	107	Low	M	No		69
123	5.2	86	Low	M	No		66
124	5.6	93	Low	M	Yes	Primary	95
125	8.3	98	Middle	M	No		94
126	7.7	99	Low	M	No		64
127	6.5	93	Middle	M	Yes	Primary	62
128	7.2	86	Middle	F	No		113
129	3.6	89	Middle	M	Yes	Intermediate	58
130	3.8	80	Low	M	Yes	Intermediate	68
131	6.1	100	Middle	F	No		64
132	9.5	113	Middle	F	No		86
133	10.5	119	Low	M	No		96
134	10.5	130	Low	M	No		103
135	7.0	97	Middle	F	Yes	Primary	78
136	10.5	93	Middle	M	No		76
137	6.1	109	Middle	M	No		60
138	4.9	100	Low	F	No		63
139	5.4	99	Middle	F	No		73
140	5.0	87	Low	M	No		54
141	4.0	78	Low	M	No		72
142	7.7	119	Low	M	No		62
143	7.0	99	Low	F	No		53
144	5.0	91	Low	F	No		59

TABLE X (continued)

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
145	3.1	93	Low	F	Yes	Primary	63
146	10.5	104	Low	F	No		98
147	4.8	80	Middle	F	No		60
148	4.2	88	Low	F	No		77
149	6.3	98	Middle	F	No		100
150	4.2	86	Low	M	No		84
151	3.7	89	Middle	F	No		61
152	9.4	107	Middle	F	No		99
153	4.3	76	Middle	M	No		69
154	7.7	114	Middle	F	No		89
155	10.5	122	Middle	M	No		83
156	7.7	124	Middle	M	No		104
157	4.5	92	Middle	F	No		68
158	4.3	90	Middle	F	No		97
159	6.6	106	Low	M	No		97
160	5.4	83	Middle	M	No		68
161	8.5	109	Middle	F	No		76
162	9.5	140	Middle	M	No		76
163	7.7	100	High	M	No		98
164	7.5	100	Low	M	No		80
165	9.2	103	Low	M	No		94
166	8.8	102	Middle	F	No		100
167	10.5	117	Middle	F	No		92
168	10.5	115	Middle	F	No		92

TABLE X (continued)

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
169	5.4	98	Middle	M	No		78
170	5.8	93	Middle	F	No		76
171	4.3	93	Middle	F	No		95
172	10.5	105	Low	F	No		95
173	7.5	94	Middle	M	No		89
174	6.5	93	Middle	F	No		69
175	5.8	102	Middle	F	No		81
176	8.6	113	Middle	M	No		80
177	5.7	103	Middle	F	No		88
178	9.6	121	Middle	F	No		108
179	9.5	131	Middle	F	No		95
180	9.4	112	Middle	F	No		79
181	6.3	102	Low	F	No		77
182	4.9	87	Low	M	No		76
183	5.5	88	Low	M	No		78
184	9.2	121	Low	F	No		97
185	6.6	118	Low	F	No		71
186	3.9	75	Middle	F	Yes	Intermediate	60
187	4.8	112	Middle	M	Yes	Primary	110
188	3.8	88	Middle	F	No		75
189	8.2	110	Low	F	No		59
190	9.6	114	Low	F	No		100
191	10.1	108	Low	F	No		85
192	6.3	105	Middle	F	No		64

TABLE X (continued)

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
193	5.4	95	Low	M	No		70
194	7.6	106	Middle	M	No		85
195	6.7	101	Low	M	No		80
196	7.7	104	Middle	F	No		87
197	7.0	108	Middle	M	No		104
198	5.2	94	Middle	F	No		73
199	10.1	123	Middle	M	No		70
200	6.2	83	Middle	F	No		58
201	5.5	82	Low	M	No		78
202	10.5	107	Low	F	No		76
203	7.1	91	Low	M	No		67
204	9.5	117	Low	F	No		111
205	7.5	109	Middle	F	No		84
206	7.7	109	Middle	F	No		105
207	6.5	113	Low	F	No		100
208	9.2	114	Low	F	No		92
209	4.3	100	Middle	M	No		79
210	5.6	110	Middle	M	No		100
211	10.0	101	High	M	No		96
212	4.8	79	Low	M	No		65
213	8.8	124	Middle	M	No		101
214	7.7	106	Middle	M	No		95
215	9.8	113	Middle	M	No		105
216	8.5	106	Low	F	No		98

TABLE X (continued)

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
217	7.5	133	Low	M	No		90
218	6.5	102	Middle	F	No		96
219	5.4	91	Middle	F	No		81
220	7.2	112	Middle	F	No		100
221	8.6	105	Middle	F	No		111
222	6.1	99	Middle	F	No		107
223	5.6	97	High	F	No		67
224	3.4	78	Low	M	No		52
225	5.8	86	High	M	No		98
226	9.2	94	Middle	M	No		110
227	4.0	106	Middle	M	No		64
228	4.1	71	Low	M	Yes	Primary	56
229	3.4	86	Low	M	Yes	Primary	82
230	8.3	129	Middle	M	No		101
231	6.8	126	High	F	No		118
232	4.5	86	Middle	F	No		87
233	5.6	108	Middle	F	No		106
234	4.1	89	Low	F	No		41
235	4.6	82	Low	F	No		75
236	5.3	94	Low	F	No		71
237	6.4	103	High	F	No		89
238	10.1	127	High	F	No		97
239	5.2	95	Middle	M	No		59
240	3.0	91	Middle	M	Yes	Intermediate	73

TABLE X (continued)

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
241	3.0	86	Low	M	No		73
242	7.1	92	Middle	F	No		95
243	4.3	88	Low	M	No		90
244	4.8	107	Middle	M	No		77
245	5.6	104	Low	M	No		65
246	7.0	102	Low	F	No		77
247	4.5	107	Middle	M	No		60
248	5.2	82	Middle	M	No		59
249	5.4	101	Middle	F	No		107
250	6.0	84	Middle	M	No		71
251	7.7	107	Middle	M	No		80
252	7.4	98	Middle	M	No		58
253	6.0	103	Middle	F	No		97
254	4.8	93	Middle	F	No		59
255	7.4	94	Low	F	No		100
256	5.8	111	Low	M	No		80
257	10.5	119	Middle	M	No		102
258	4.8	90	Middle	F	Yes	Primary	66
259	3.6	88	Low	M	No		70
260	6.9	112	High	F	No		95
261	7.5	119	Middle	F	No		74
262	5.9	96	Middle	M	No		83
263	3.9	104	Middle	M	No		104
264	6.2	108	Low	M	No		48

TABLE X (continued)

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
265	6.2	104	Low	F	No		104
266	8.5	102	Middle	F	No		90
267	3.8	100	Middle	F	No		95
268	5.6	86	Middle	F	Yes	Primary	98
269	8.5	114	High	M	No		104
270	9.5	140	Low	M	No		96
271	5.0	103	High	F	No		80
272	9.6	110	High	F	No		112
273	10.0	119	Middle	F	No		94
274	7.4	116	Middle	F	No		62
275	7.7	109	Middle	F	No		57
276	8.3	91	Low	M	Yes	Primary	45
277	10.5	130	Middle	F	No		107
278	9.0	107	High	F	No		93
279	7.8	111	Low	M	No		64
280	4.7	90	Low	F	No		92
281	5.7	90	Middle	M	Yes	Primary	91
282	10.5	107	Low	M	No		98
283	10.5	120	Low	M	No		92
284	10.5	123	Low	M	No		90
285	5.8	89	High	M	No		87
286	5.4	100	Middle	M	No		70
287	5.8	103	Low	F	No		69
288	9.6	111	Low	F	No		89

TABLE X (continued)

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
289	5.4	100	Middle	F	No		55
290	5.3	106	Low	F	No		85
291	10.5	128	Middle	M	No		105
292	7.9	104	Middle	M	No		89
293	10.1	130	Low	F	No		100
294	6.9	120	Middle	F	No		110
295	5.0	100	Middle	M	No		90
296	5.0	100	Middle	M	No		100
297	9.4	115	Middle	F	No		78
298	6.9	103	High	M	No		78
299	10.5	134	Middle	F	No		95
300	10.5	108	Middle	F	No		91
301	6.0	96	Low	F	No		88
302	10.5	130	Middle	F	No		108
303	6.7	111	Low	M	No		106
304	7.9	124	Middle	M	No		103
305	7.4	101	Low	F	No		99
306	8.5	119	High	M	No		96
307	10.5	128	Middle	F	No		93
308	4.6	99	Low	F	No		82
309	6.8	109	Low	F	No		66
310	5.2	84	Middle	F	Yes	Intermediate	96
311	9.8	119	Middle	M	No		86
312	5.2	111	Low	F	No		107

TABLE X (continued)

Student	Stanford Grade Equivalent	Otis-Lennon Intelligence Quotient	Roe Socioeconomic Level	Sex	Grade Retention	Level Grade Retention (if any)	Heathington Attitude Score
313	3.0	98	Middle	F	No		73
314	6.4	100	Low	F	No		91
315	8.6	116	Low	F	No		104
316	8.5	113	Middle	F	No		101
317	7.0	98	Low	F	No		63
318	5.6	95	Low	M	No		83
319	5.6	100	Low	F	No		56
320	7.8	104	Low	M	No		86
321	6.5	100	Middle	F	No		78
322	5.3	100	Low	F	No		92
323	7.4	99	Middle	M	No		99
324	10.1	116	Middle	F	No		102
325	6.9	94	Middle	M	No		86
326	5.8	93	Middle	F	No		94
327	4.8	104	Low	M	No		84
328	6.4	100	Low	F	No		99
329	10.5	112	Low	F	No		114
330	7.9	118	Low	F	No		95
331	4.7	82	Low	M	Yes	Intermediate	102
332	8.8	124	Middle	M	No		88

APPENDIX E

APPENDIX E

TABLE XI

SOCIOECONOMIC DATA

Student Number	Occupation of Parent
1	Bank of Knoxville
2	Army Reserve
3	Concrete company
4	Truck driver
5	Alcoa
6	Alcoa
7	Alcoa
8	Engineer
9	L&N Railroad
10	Alcoa
11	TVA
12	Forest ranger
13	Tile service
14	Alcoa
15	Alcoa
16	Federal Aviation Agency
17	Postal clerk
18	Grocery store
19	Delta Airlines
20	Alcoa
21	Tire company
22	Alcoa
23	Self-employed, paint and body shop
24	Tire recapper
25	Graphic arts
26	Alcoa
27	Alcoa
28	Student, part-time employed
29	Farmer
30	Dime store employee
31	Textile mill
32	Truck driver
33	Disabled from construction
34	Construction
35	Self-employed, grocery store
36	Alcoa
37	Construction
38	Painter
39	Greyhound Bus Company
40	Lumber company

TABLE XI (continued)

Student Number	Occupation of Parent
41	Trucker
42	Plumber
43	Rohm and Haas Tennessee, Inc.
44	Machine company
45	School maintenance
46	Tennessee Farmer's Cooperative
47	Construction
48	Glass cutter
49	Alcoa
50	Retired, Alcoa
51	TVA
52	Laundry manager
53	Paving company
54	Driller
55	Alcoa
56	Oil company
57	Kroger's
58	Minister
59	Walker's Supply Company
60	Worker, Maryville College
61	Unemployed
62	Carpenter helper
63	Hiwassee Land Company
64	Deceased
65	Aide (ESPH)
66	Secretary
67	Self-employed
68	Painter
69	Construction
70	Alcoa
71	A.L.C.V.H.
72	Storeroom, Knoxville City Schools
73	Mechanical technician
74	Truck driver
75	Salesman
76	Loan company
77	Rockford Manufacturing Company
78	Retired
79	Rohm & Haas Tennessee, Inc.
80	Alcoa

TABLE XI (continued)

Student Number	Occupation of Parent
81	Demster Brothers
82	Self-employed, Concrete work
83	Alcoa
84	Self-employed
85	Engineer
86	Alcoa
87	Alcoa
88	Engineer
89	Heating and air conditioning
90	Allied Structural Steel
91	Rodger's Cadillac
92	Electrician
93	Alcoa
94	Truck driver
95	Disabled
96	Rockford Manufacturing Company
97	Welfare
98	Salesman
99	Alcoa
100	Alcoa
101	Alcoa
102	Alcoa
103	Janitor
104	Truck driver
105	Lumber company
106	Heavy equipment operator
107	Contractor
108	Alcoa
109	School maintenance
110	Builder
111	Sales manager
112	Welder, Alcoa
113	J.C. Penney, Company
114	City of Alcoa
115	Electrician
116	Construction
117	Unemployed
118	Crane operator
119	Farmer
120	Fulton-Sylphon Company

TABLE XI (continued)

Student Number	Occupation of Parent
121	Store manager
122	Alcoa
123	Laborer
124	J. D. Savage
125	Dodge Truck Sales
126	Vulcan S.
127	Air Force
128	King Volkswagen Company
129	Electrician
130	Children's Home
131	Air Force
132	Air Force
133	Truck driver
134	Cleaner, Oak Ridge
135	Salesman
136	Drywall hanger
137	Laboratory technician, heating company
138	Lambert Vulcan Materials
139	Sales representative
140	Oak Ridge
141	Alcoa
142	Minister
143	Alcoa
144	Laborer
145	Lumber company
146	Alcoa
147	Mechanic
148	Logger
149	Car salesman
150	Alcoa
151	Self-employed, mechanic
152	Machinist, Oak Ridge
153	Brickmason
154	Carpenter
155	Foreman
156	Tennessee Air National Guard
157	Painter
158	Butcher
159	Alcoa
160	Teacher, auto painting

TABLE XI (continued)

Student Number	Occupation of Parent
161	Carpenter
162	Sales representative
163	School principal
164	Alcoa
165	Alcoa
166	Mechanic
167	Tennessee Farmer's Cooperative
168	Business machine technician
169	Salesman
170	Body man and painter
171	Pulpwood cutter
172	John J. Craig, Company
173	Civil service and real estate
174	Drywall finisher
175	Produce salesman
176	Salesman
177	Salesman
178	L. P. N., Blount Memorial Hospital
179	Builder
180	Butcher
181	Alcoa
182	Service station
183	Alcoa
184	Eagles Dime Store
185	Alcoa
186	Secretary
187	Horticulturist
188	Lambert Brothers
189	Maintenance
190	Unemployed
191	Bulk tank driver
192	Printer
193	Construction
194	Glass company
195	Alcoa
196	Plumber
197	Minister
198	Colvin Heating
199	Pipefitter, Alcoa
200	Tool and die maker

TABLE XI (continued)

Student Number	Occupation of Parent
201	Alcoa
202	Unemployed
203	Levi Strauss and Company
204	Alcoa
205	Cabinet shop
206	Retired, Air Force
207	Alcoa
208	Truck driver
209	Minister
210	South Central Bell
211	Teacher
212	Alcoa
213	Butcher
214	Maryville Utilities
215	Maryville Utilities
216	Iron worker
217	Janitor
218	Sexton Aviation
219	Salesman
220	Salesman
221	Manager, Hefner Tires
222	Alcoa, minister
223	Vocational School Supervisor
224	Hydraulics
225	Sales supervisor
226	Electrician
227	Omelite Plastics
228	City of Maryville
229	City of Maryville
230	Southern Airways
231	Instructor, mechanic
232	Pharmaceutical representative
233	Nurseryman
234	Alcoa
235	Truck driver
236	Construction
237	Orthopedic technician
238	Air controller, F.A.A.
239	Concrete finisher
240	Concrete finisher

TABLE XI (continued)

Student Number	Occupation of Parent
241	Alcoa
242	Sears
243	Carpet cleaner
244	Bank of Maryville
245	City of Maryville
246	Excavating
247	Painter
248	Construction, painter
249	Brickmason
250	Mechanic, Alcoa
251	Secretary, Alstate
252	Secretary
253	John Rainey Volkswagen, Company
254	Electrician
255	Truck driver
256	Levi Strauss and Company
257	Federal Aviation Association
258	Retail Credit Company
259	Laborer
260	Accountant
261	Gillespie and Sherrod
262	Self-employed, paint and body shop
263	Retired, U.S. Treasury
264	R. C. Bottling Company
265	Levi Strauss and Company
266	Delta Transport Agency
267	Welder
268	National Guard
269	Lawyer
270	Porter, Greyhound Bus Company
271	Engineer, Alcoa
272	Aircraft technician
273	Foreman, Alcoa
274	State Farm Insurance
275	Welfare Department
276	Hand Craft Cleaners
277	Self-employed
278	Optician
279	Hartman Beverage Company
280	Farmer

TABLE XI (continued)

Student Number	Occupation of Parent
281	Secretary, Alcoa
282	Unemployed
283	Alcoa
284	Industrial Jobbers
285	Certified Public Accountant
286	Meatcutter
287	Institutional Jobbers
288	Knox Iron Company
289	Electrician
290	Unemployed
291	Carpenter
292	Computer installer
293	Alcoa
294	Hairdresser
295	Air National Guard
296	Salesman
297	Grey-Hodge Corporation
298	Teacher
299	Postman
300	Mechanic, welder
301	Knoxville Fire Department
302	Foreman, Alcoa
303	Alcoa
304	TVA
305	Standard Knitting Mills
306	Instructor, Air Base
307	Insurance salesman
308	Levi Strauss and Company
309	Alcoa
310	Carpenter
311	Postman
312	Carpet layer
313	Mechanic
314	Levi Strauss and Company
315	Alcoa
316	Carpenter
317	Alcoa
318	Alcoa
319	Telephone operator
320	Machinist, Alcoa

TABLE XI (continued)

Student Number	Occupation of Parent
321	State of Tennessee
322	Construction
323	Diesetter
324	Animal controller, Alcoa
325	Salesman
326	Contractor
327	Lumber molder
328	Custodian
329	Alcoa
330	Alcoa
331	Truck driver
332	Post Office

VITA

Mary Margaret Selvidge Dotson was born in Lenoir City, Tennessee on October 1, 1934. She holds a Bachelor of Science degree in Elementary Education from The University of Tennessee, and a Masters degree from The University of Tennessee. Mrs. Dotson is married and has two daughters.

She is a teacher in the Blount County school system. She is a member of the International Reading Association, and Phi Delta Kappa.